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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,159	10/31/2003	Daniel C. Conrad	US20010201	1600

7590

03/24/2006

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EXAMINER
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KHAN, AMINA S

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/699,159	CONRAD ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Amina Khan	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-78 is/are pending in the application.
- 4a) Of the above claim(s) 14-78 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-78 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,6,8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Estes et al. (US 2002/0056164) in view of "Membranes the Finest Filtration" ([http://www.gewater.com/library/tp/698\\_Membranes\\_the.jsp](http://www.gewater.com/library/tp/698_Membranes_the.jsp)).

Estes et al. teach methods of cleaning comprising delivering a substantially non-reactive, non-aqueous, non-oleophilic, apolar working fluid and at least one washing additive to fabrics in a wash container, applying mechanical energy to clothing and wash liquor, substantially removing the wash liquor from the fabric load (abstract), capturing and condensing the working fluid and filtering it (page 5, paragraph 0066), as claimed in claims 1 and 8. Estes further teaches that the working fluid has the following properties: surface tension of less than or equal to 35 dynes/cm<sup>2</sup>; a KB value of less than or equal to 30; and a solubility in water of less than about 10% (page 2, paragraph 0020), as claimed in claims 1 and 9. Estes further teaches that the cleaning compositions comprise washing adjuvants such as surfactants, enzymes, bleaches, deodorizers, fragrances, antistatic agents, and anti-stain agents (page 2, paragraph 0024), as claimed in claim 6.

Estes et al. is silent as to the type of filter used in the filtration process and does not specifically teach cross membrane filters. Estes is also silent as to the impurity level of the working fluid, and does not specifically teach impurity values of not more than 20%.

The "Membranes the Finest Filtration" document teaches that cross flow membrane filters are useful filters for commercial laundry usage, specifically to reuse laundry water (page 6, waste treatment section).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods taught by Estes et al. by incorporating the cross flow membrane filters taught in the "Membranes the Finest Filtration" document because the document recites the utility of these membranes in laundry applications. One of ordinary skill in the art would have been motivated to combine the teachings of the two references absent unexpected results. It would further have been obvious to one of ordinary skill in the art at the time the invention was made that the teachings of Estes et al. would encompass working fluids with impurities of not more than approximately 20% because Estes teaches similar compositions and similar methods to those instantly claimed. One would expect that these similar compositions treated by similar methods would have similar impurity levels. The burden is on the applicant to prove otherwise.

Claims 1,6,8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Estes et al. (US 6,045,588) in view of "Membranes the Finest Filtration" ([http://www.gewater.com/library/tp/698\\_Membranes\\_the.jsp](http://www.gewater.com/library/tp/698_Membranes_the.jsp)).

Estes et al. teach methods of cleaning comprising delivering a substantially non-reactive, non-aqueous, non-oleophilic, apolar working fluid and at least one washing additive to fabrics in a wash container, applying mechanical energy to clothing and wash liquor, substantially removing the wash liquor from the fabric load (abstract), capturing and condensing the working fluid and filtering it (column 10, lines 38-42), as claimed in claims 1 and 8. Estes further teaches that the working fluid has the following properties: surface tension of less than or equal to 35 dynes/cm<sup>2</sup>; a KB value of less than or equal to 30; and a solubility in water of less than about 10% (column 3, lines 1-6), as claimed in claims 1 and 9. Estes further teaches that the cleaning compositions comprise washing adjuvants such as surfactants, enzymes, bleaches, deodorizers, fragrances, antistatic agents, and anti-stain agents (column 3, lines 27-35, paragraph 0024), as claimed in claim 6.

Estes et al. is silent as to the type of filter used in the filtration process and does not specifically teach cross membrane filters. Estes is also silent as to the impurity level of the working fluid, and does not specifically teach impurity values of not more than 20%.

The "Membranes the Finest Filtration" document teaches that cross flow membrane filters are useful filters for commercial laundry usage, specifically to reuse laundry water (page 6, waste treatment section).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods taught by Estes et al. by incorporating the cross flow membrane filters taught in the "Membranes the Finest Filtration" document

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because the document recites the utility of these membranes in laundry applications. One of ordinary skill in the art would have been motivated to combine the teachings of the two references absent unexpected results. It would further have been obvious to one of ordinary skill in the art at the time the invention was made that the teachings of Estes et al. would encompass working fluids with impurities of not more than approximately 20% because Estes teaches similar compositions and similar methods to those instantly claimed. One would expect that these similar compositions treated by similar methods would have similar impurity levels. The burden is on the applicant to prove otherwise.

Claims 1,6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Estes et al. (US 6,045,588) in view of "Membranes the Finest Filtration" ([http://www.gewater.com/library/tp/698\\_Membranes\\_the.jsp](http://www.gewater.com/library/tp/698_Membranes_the.jsp)) and further in view of Aouad et al. (US 6,770,615).

Estes et al. and "Membranes the Finest Filtration" are relied upon as set forth above.

Estes et al. and "Membranes the Finest Filtration" are silent as to the HLB level of the surfactants used in the cleaning composition. However, Estes clearly suggests the usage of surfactants in the laundering process.

Aouad et al. teaches non-aqueous laundry detergent compositions comprising surfactants with HLB values ranging from 10-16 (column 11, lines 5-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods taught by Estes et al and "Membranes the

Finest Filtration” by incorporating into the cleaning compositions the surfactants taught by Aouad et al. because Aouad teaches the utility of these surfactants in the laundering process. Furthermore it is well known in the art to utilize the surfactants of the instantly claimed HLB range in laundering processes. One of ordinary skill in the art would have been motivated to combine the teachings of the references absent unexpected results.

Claims 1,2,5,6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hallman et al. (US 2003/0196277) in view of “Membranes the Finest Filtration” ([http://www.gewater.com/library/tp/698\\_Membranes\\_the.jsp](http://www.gewater.com/library/tp/698_Membranes_the.jsp)).

Hallman et al. teach methods of laundering fabrics comprising placing articles in a rotating cleaning basket, adding siloxane solvents and cleaning agents, such as surfactants, (page 2, paragraph 0025), agitating articles in cleaning compositions, draining the cleaning composition, condensing (page 7, paragraphs 0065-0066) and regenerating the cleaning fluid (page 3, paragraph 0033) as claimed in claim 1. Hallman further teaches using mechanical filtration, particulate filtration and cleaning fluid regeneration absorption media, such as packed bed columns (page 3, paragraph 0033-0040).

Hallman does not teach cross membrane filtration and is silent as to the impurity levels, KB values, surface tension and water solubility of the solvent.

The “Membranes the Finest Filtration” document teaches that cross flow membrane filters are useful filters for commercial laundry usage, specifically to reuse laundry water (page 6, waste treatment section).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods taught by Hallman by incorporating the cross flow membrane filters taught in the "Membranes the Finest Filtration" document because the document recites the utility of these membranes in laundering applications. One of ordinary skill in the art would have been motivated to combine the teachings of the two references absent unexpected results. It would further have been obvious to one of ordinary skill in the art at the time the invention was made that the teachings of Hallman would encompass working fluids with impurities of not more than approximately 20%, surface tension of less than or equal to 35 dynes/cm<sup>2</sup>; a KB value of less than or equal to 30; and a solubility in water of less than about 10% because the applicant, in the instant specification, recites siloxane based solvents, may be used in the claimed invention (page 13, paragraph 0133). One would expect that these similar compositions treated by similar methods would have similar impurity levels and similar properties. The burden is on the applicant to prove otherwise.

Claims 1-5 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berndt et al. (US 6,059,845) in view of Hallman et al. (US 2003/0196277) and further in view of "Membranes the Finest Filtration" ([http://www.gewater.com/library/tp/698\\_Membranes\\_the.jsp](http://www.gewater.com/library/tp/698_Membranes_the.jsp)).

Berndt et al. teach methods of laundering fabrics comprising placing articles in a rotating cleaning basket, adding Class 3-A type solvents, specifically siloxane, agitating articles in solvent, extracting the solvent, recovering condensed vapors and filtering the



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solvent using a diatomaceous earth type spin disc filter (column 3, line 30 to column 4, line 29), as claimed in claim 1.

Berndt does not teach washing adjuvants, cross membrane filtration and is silent as to the impurity levels, KB values, surface tension and water solubility of the solvent.

Hallman is relied upon as set forth above. Hallman et al. teaches the addition of washing adjuvants such as surfactants (page 2, paragraph 0025), to siloxane based cleaning solutions. Hallman further teaches methods of laundering fabrics with these cleaning solutions.

The "Membranes the Finest Filtration" document teaches that cross flow membrane filters are useful filters for commercial laundry usage, specifically to reuse laundry water (page 6, waste treatment section).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cleaning methods taught by Berndt et al. by incorporating surfactants taught by Hallman, because Hallman teaches the utility of adding surfactants to effectively launder textiles. It would further have been obvious to modify the methods taught by Berndt by incorporating the cross flow membrane filters taught in the "Membranes the Finest Filtration" document because the document recites the utility of these membranes in laundering applications.

One of ordinary skill in the art would have been motivated to combine the teachings of the references absent unexpected results. It would further have been obvious to one of ordinary skill in the art at the time the invention was made that the teachings of Berndt et al. would encompass working fluids with impurities of not more

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than approximately 20%, surface tension of less than or equal to 35 dynes/cm<sup>2</sup>; a KB value of less than or equal to 30; and a solubility in water of less than about 10% because the applicant in the instant specification recites that Class 3-A solvents, specifically siloxane based solvents, may be used in the claimed invention (page 13, paragraph 0133). One would expect that these similar compositions treated by similar methods would have similar impurity levels and similar properties. The burden is on the applicant to prove otherwise.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1,6 and 7 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 19-27 of copending Application No. 10/699,262. Although the conflicting claims are not identical, they are not patentably distinct from each other because while the claims don't specifically recite filtration through a cross flow membrane filter, claim 21 recites filtration through a filter described in paragraph 82 of the specification. Paragraph 82 of the specification teaches cross flow membrane filters. Therefore it would have been obvious to one of ordinary skill in the art to arrive at methods of filtering through a cross flow membrane filter in view of the disclosure of the specification.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1,6 and 7 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3,7 and 9 of copending Application No. 10/698,920. Although the conflicting claims are not identical,

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they are not patentably distinct from each other because while the claims don't specifically recite filtration through a cross flow membrane filter, claim 21 recites filtration through a filter described in paragraph 82 of the specification. Paragraph 82 of the specification teaches cross flow membrane filters. Therefore it would have been obvious to one of ordinary skill in the art to arrive at methods of filtering through a cross flow membrane filter in view of the disclosure of the specification.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1-13 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-13 of copending Application No. 10/957,487. This is a

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provisional double patenting rejection since the conflicting claims have not in fact been patented.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amina Khan whose telephone number is (571) 272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Amina Khan, PhD  
Patent Examiner  
March 20, 2006



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